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Dated

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21JAN03 E778708-1 D01038 P01/7700 0.00-0301343.0

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1. Your reference

P303806GB

2. Patent application number (Tim Patent Office will fill in this part) 21 JAH 2003

0301343.0

3. Full name, address and postcode of the or of each applicant (underline all surnames)

W3ILN Limited Willenhall Lane Industrial Estate

Bloxwich Walsall

West Midlands WS3 2XN United Kingdom

085L8836001 Patents ADP number (if you know in)

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention

Improvements in web servers

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

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Patents ADP number (fyou linow it)

1776001

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Country

Priority application number (if you know it)

Date of filing (day / nionth / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing (day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (anover 'Yes' If:

u) any applicant named in part 3 is not an inventor, or b) there is an invante who is not named as an applicant. YES

e) are imited applicant in a corporate body. See note (U))

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Description

8

Claim(s)

Abstract

DWC

Drawing (s)

(1) 27 CM

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Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

Request for substantive examination (Patents Form 10/77)

Any other documents (please specific)

11.

I'We request the grant of a patent on the basis of this application.

Signature (

Date 21/01/2003

 Name and daytime telephone number of person to contact in the United Kingdom Karl J Barnfather

0121 245 3900

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Notes

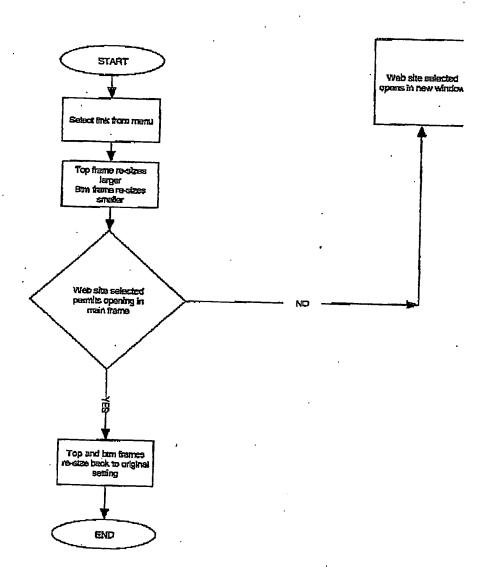
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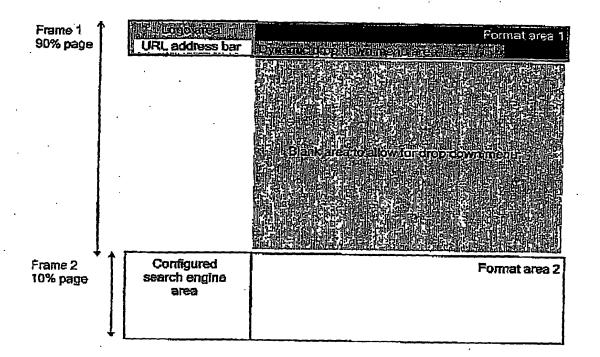
Figure 1

18:13

Frame 1 \$ 8% page	URL address bar	2//2011 9502 000 000 000 000 000 000 000 000 000	Format area 1
Frame 2 92% page	Configured search engine area		Format area 2
			·

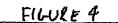
FIGURE 2

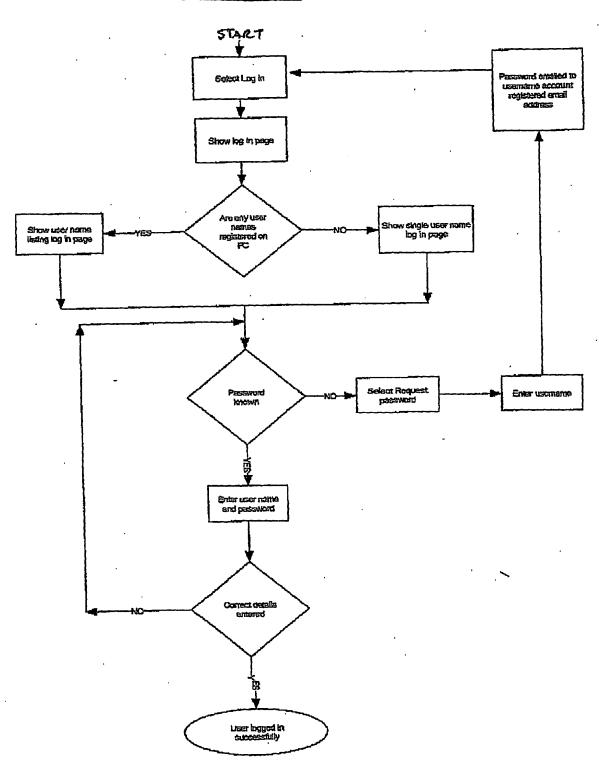




FROM-+44

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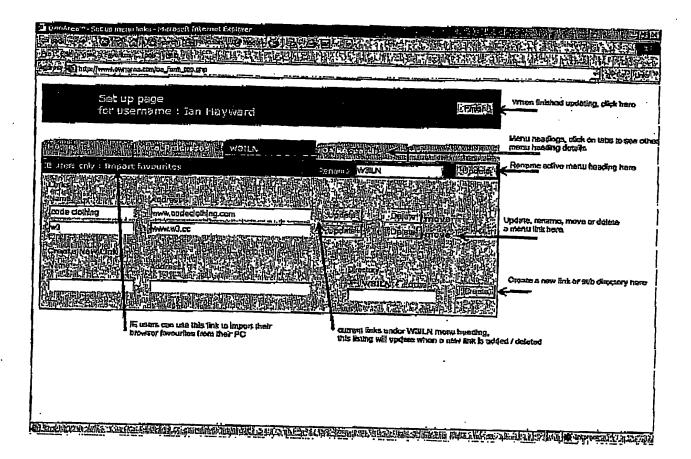




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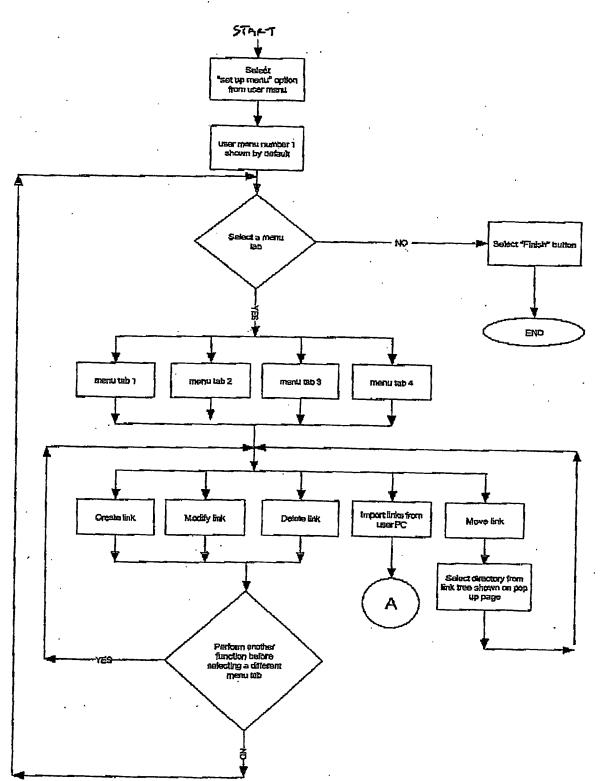
18:13

Figure 5

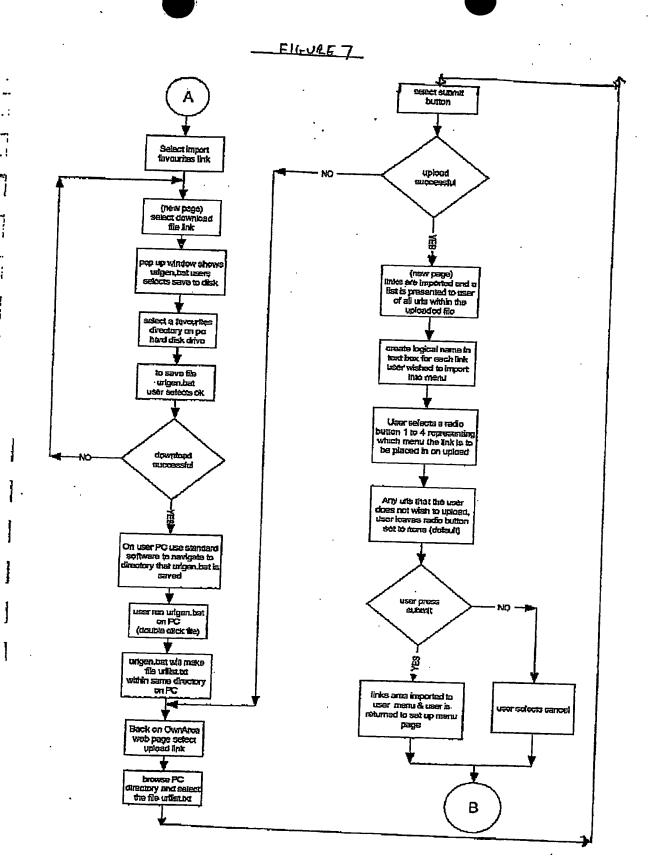


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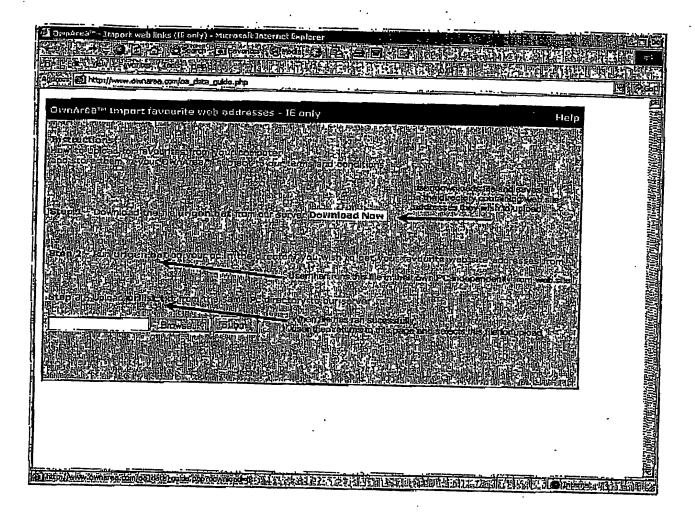


Figure 9

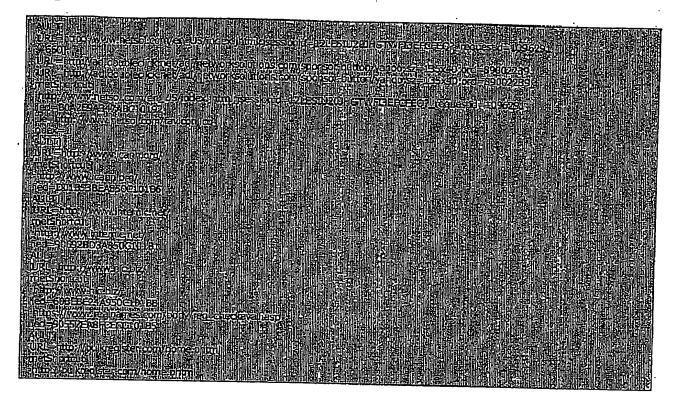
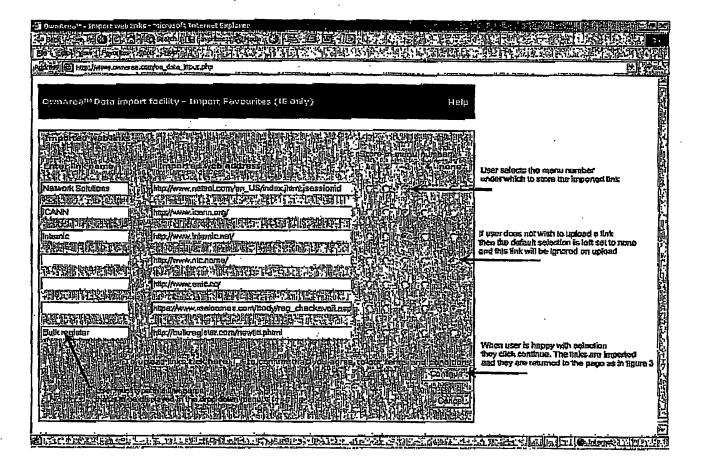
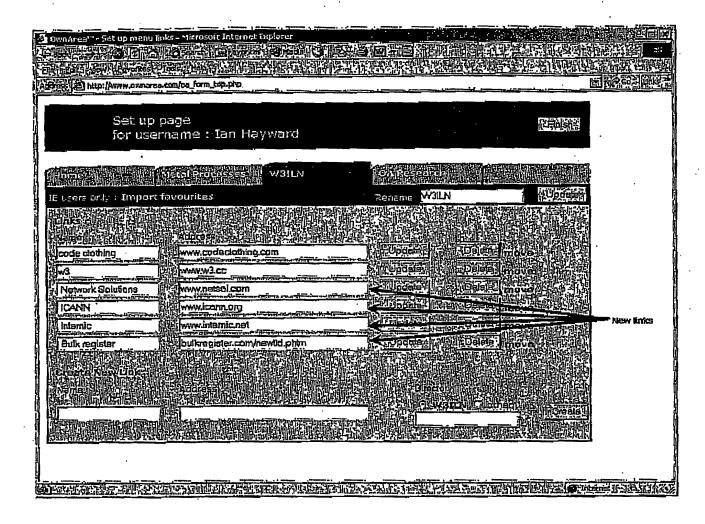
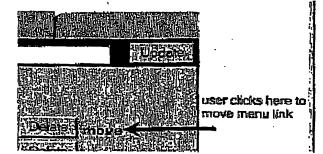


Figure 10











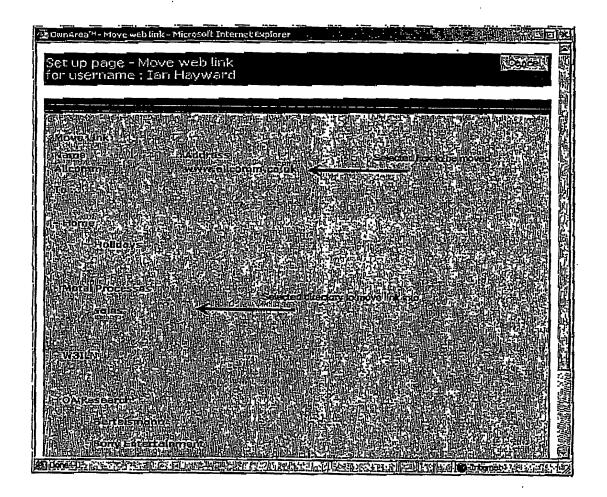


Figure 14

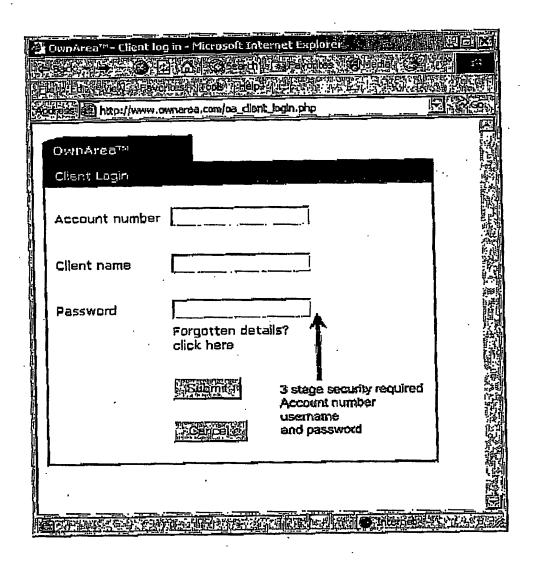
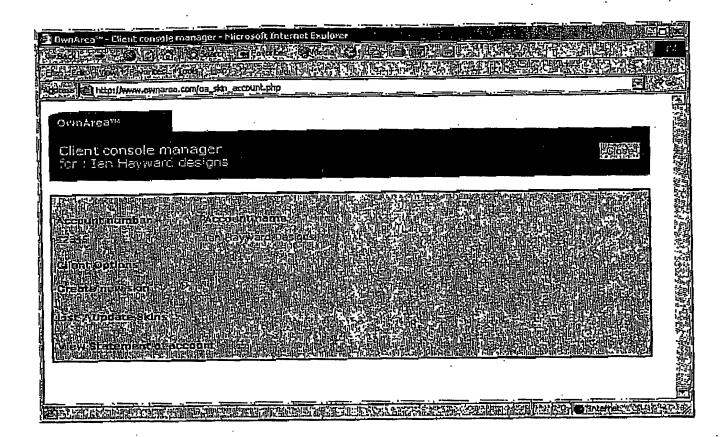
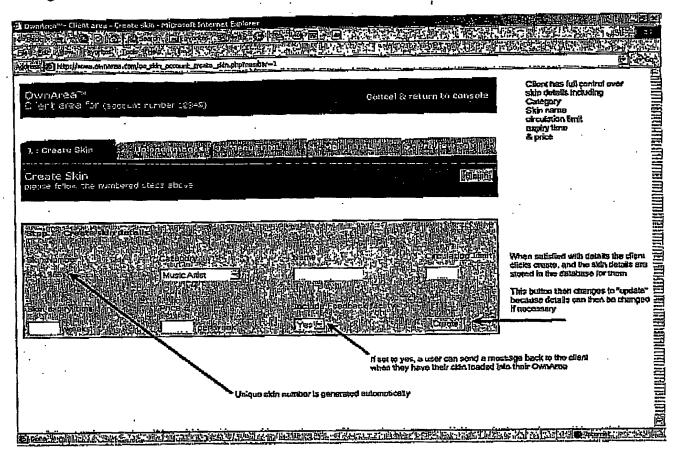


Figure 15







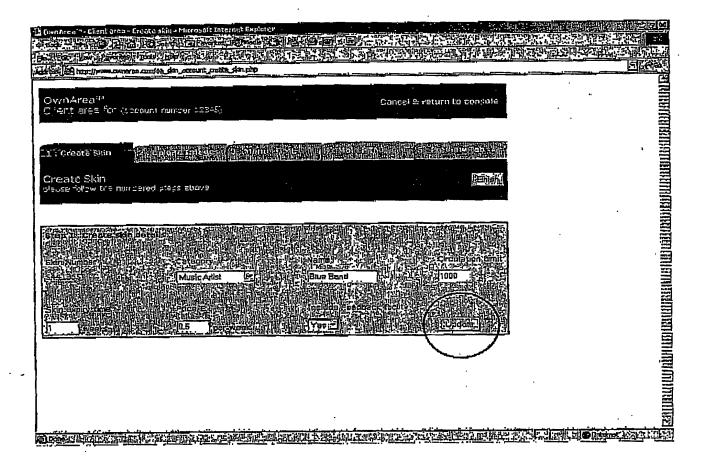
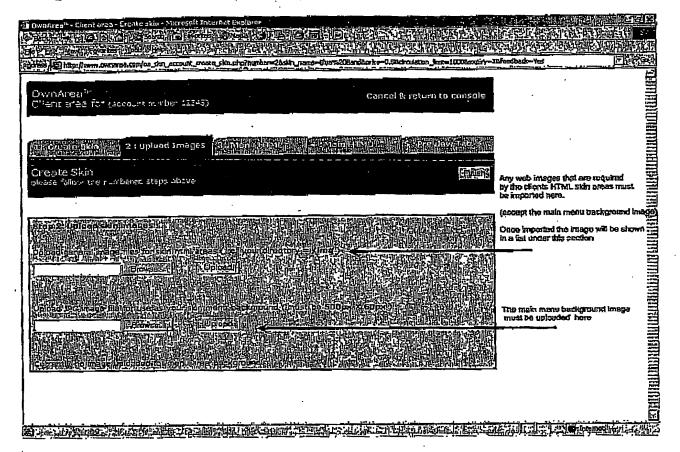
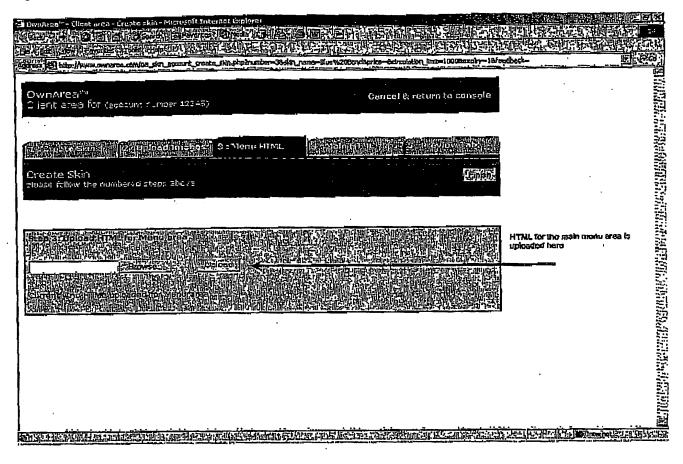
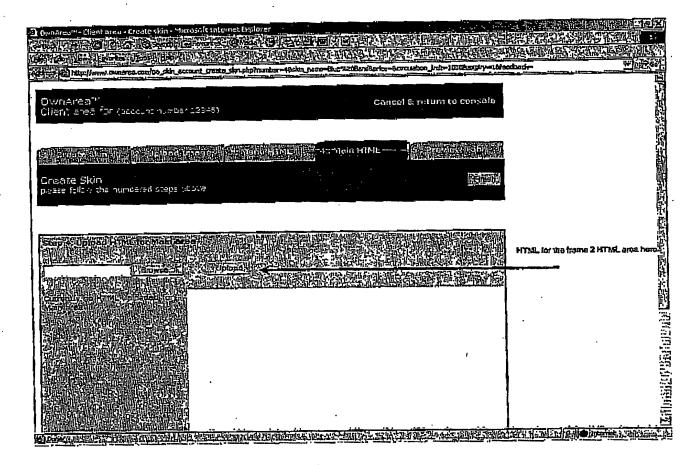


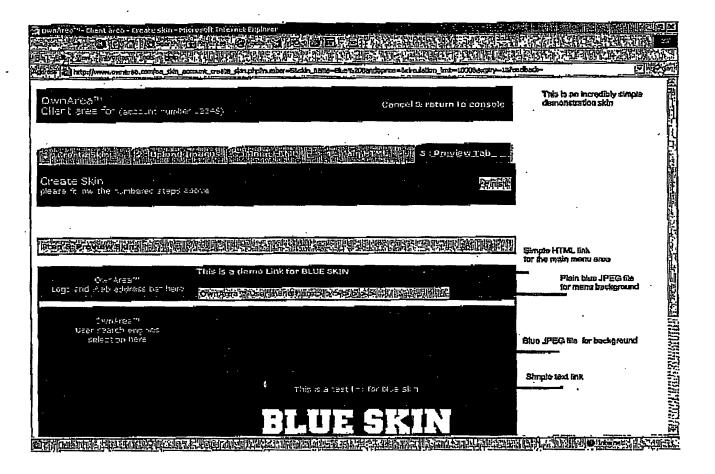
Figure 18



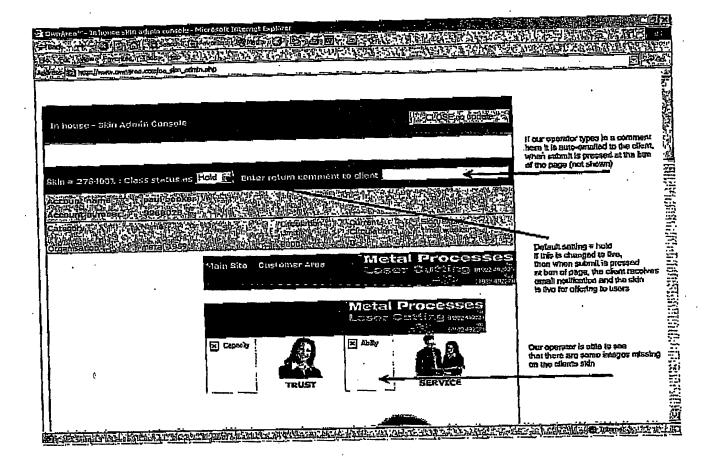


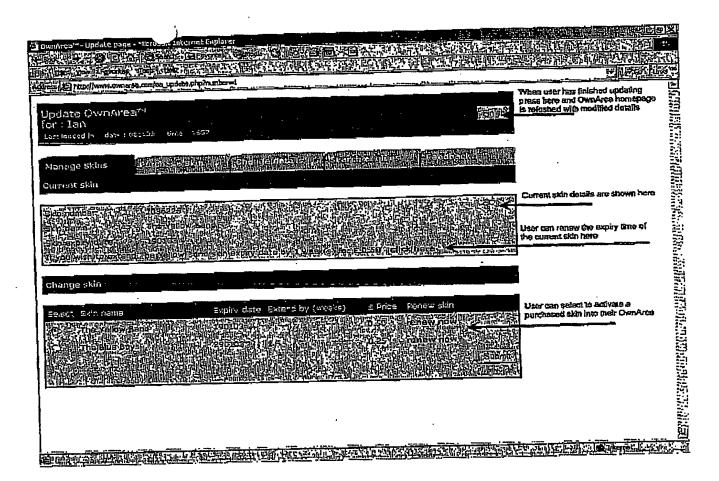




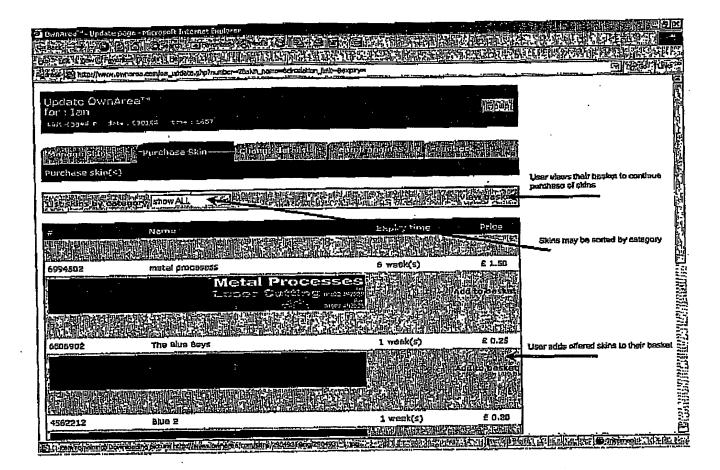


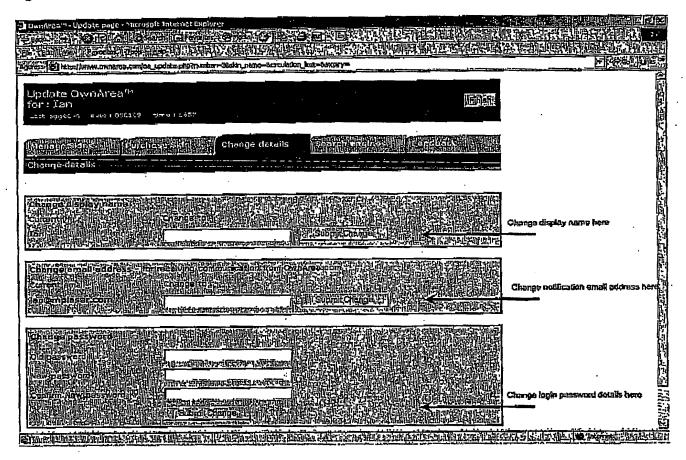


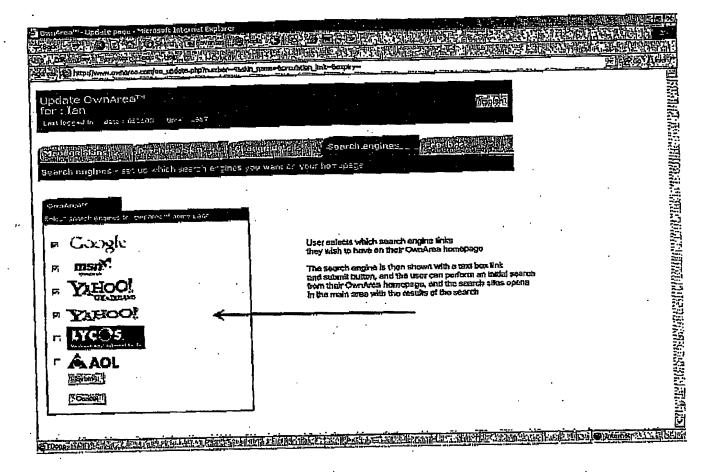


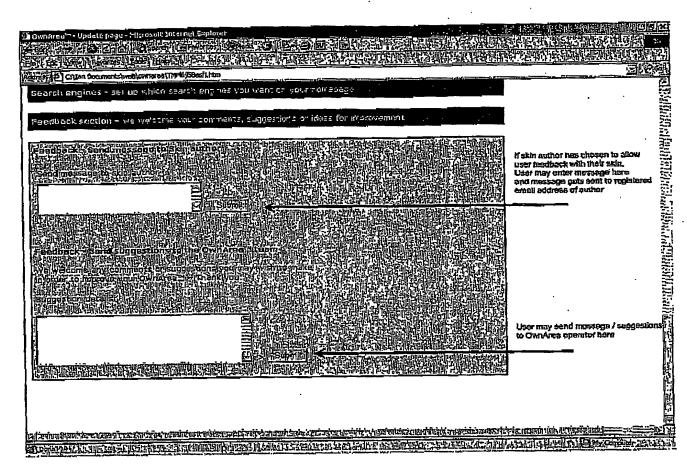












P.004

Improvements in Web Servers

This invention relates to systems and web pages for improving use of the Internet.

It is known to use a web browser which displays a web page in its main window and which has a stored list of web links or internet short cuts sometimes called "favourites" and in this specification called "links", which can be edited by a user. Consequently a user can store links for websites and pages, which the user uses regularly, can return to these sites and pages by selecting the stored links without needing to remember the correct unladdress. However these links are stored locally on the user computer(web client), which was used when the links were stored. Should the user use a different computer such as at work, whilst visiting others or in an internet café or library then these links will be inaccessible.

It is also known to provide websites that harness so called "dynamic" html that alters the html of the site when user fulfils a predetermined function such as clicking on a menu. However, the html is altered in a manner predetermined by the web designer and not by the user and consequently always alters in the same manner regardless of the needs of the

It is an object of the invention to provide improvements on such systems and in particular to help users who wish to use stored links on independent computers. It is also an object of the invention to provide formatted areas of a web page and/ or browser that can be created and/or altered.

According to a first aspect of the invention there is provided a web server comprising a memory and providing an interface for use by a remote user, preferably for navigating web pages, which interface is editable/alterable by a remote user such as in appearance and/or function.

Preferably the interface includes web links such as short cuts to web pages which can be used by a remote user to access web pages, wherein more preferably the links can be created, deleted and/or edited by a remote user.

Preferably the interface comprises formatted areas at least some of which can be altered in appearance by a remote user, more preferably the user may select the appearance of the area from a list of available appearances stored in the memory of the web server. Preferably still the list of appearances of formatted areas stored in the memory can be added to or otherwise edited remotely of the web server.

Preferably the interface comprises dynamic html such as in the form of drop down menus and more preferably the dynamic html can be edited remotely by a user and the edited dynamic html used by the remote user. Preferably still the dynamic html can be edited and used completely over the internet.

Preferably any activity which a user is enabled to perform by the web server can be done independently of the location and/or computer and/or local memory the user has when accessing the web server.

Preferably the web server can be used by multiple users, more preferably each user can be identified and the interface provided to them depending on that identification, preferably still whereby edits performed by one identified user are stored in the web server memory independently of a differently identified user and an interface corresponding to the edits stored for the respective identified user is provided to that user.

According to a second aspect of the invention there is provided a web server hosting a web page, the web page incorporating dynamic html, wherein the dynamic html can be edited by a user viewing the web page remotely.

The invention and./or interface of the invention may comprise a website, web page, browser and/or browser plug-in.

Any feature described in this specification relating to the invention may be combined with any other feature described herein.

An embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a view of elements of home page according to the invention,

Figure 2 is a flow diagram of the process of a user selecting a link,

Figure 3 is a view of elements of the home page of Figure 1 in a different configuration,

Figure 4 is a flow diagram of the process of a user logging in,

Figure 5 is a flow diagram of the process of a user modifying links in the menu,

Figure 6 is a view of a set up page for updating links,

Figure 7 is a flow diagram of the process of uploading links from a PC,

Figure 8 is a view of a page for importing links,

Figure 9 is a view of Urlist.txt format when importing links,

Figure 10 is view of a page displaying imported links,

Figure 11 is a view of the set up page of Figure 6 with added links,

Figure 12 is a close up view of the "move link" in Figure 6.

Figure 13 is a view of a set up page for moving links,

Figure 14 is a view of a page that requests log in details from a client,

Figure 15 is a view of a page allowing a client to create or modify skins,

Figure 16 is a view of a page of the first tab from a menu for creating skins,

Figure 17 is a view of the page of Figure 16 in a second configuration,

Figure 18 is a view of a page of the second tab from a menu for creating skins,

Figure 19 is a view of a page of the third tab from a menu for creating skins,

Figure 20 is a view of a page of the fourth tab from a menu for creating skins,

Figure 21 is a view of a page of the fifth tab from a menu for creating skins which displays a preview of the skin,

Figure 22 is a view of a page displaying submitted skins to administrators,

Figure 23 is a view of a page of the first tab from a menu for a user to manage skins,

Figure 24 is a view of a page of the second tab from a menu for a user to manage skins allowing the user to purchase skins,

Figure 25 is a view of a page of the third tab from a menu for a user to manage skins,

Figure 26 is a view of a page of the fourth tab from a menu for a user to manage skins allowing a user to select a search engine, and

Figure 27 is a view of a feedback page using which a user may send messages to the creator of a skin.

The OwnArea™ web site functionality permits a registered user to create a catalogue of "favourite" web site links within an "on-line" Internet based, database driven, dynamic environment.

The users catalogue of data information that is created is considered to be owned by the said user in so much as only the user has access to this information via their own username and password. The username is solely unique in this respect.



Once the user has registered and created their "Own Area" site, the user may create as many web site links as they wish within this environment, there is no restriction on the number of entries that they area able to create.

The web site links are stored in a database (MYSQL) and presented when required to the user by way of a dynamically created drop down menu created on the fly by the back end coding script based upon the data that is stored on the database for them. (PHP generates DHTML & JavaScript from the data in the MYSQL database)

The web site favourite links menu comprises two fixed and 4 variable headings.

Each of the 4 variable menu headings may have subdirectorles within them, again determined by the users pre-defined stored data. All data is totally configurable at any time by the user, there is no restriction on the number of times a user may access or change their web link information.

When logged in the user is presented with their home page, see figure 1.

There are two frames to the homepage running horizontally.

(this is likely to change with the option of having the menu appear down the left hand size of the page, as well as the to of the page as it is now)

Upon loading the users OwnArea homepage...

Frame 1 is 8% (but could typically be from around 5% to around 25 %) of the page height and contains tabularised HTML created by PHP coding.

The left hand side of frame 1 (200px wide) contains the OwnArea logo and a text box with submit button.

The right hand side of frame 1 (500px wide) contains the dynamic drop down menu headings with the remainder of the background area being occupied by a user configurable formatted area. I will explain this further later on but for now we will refer to this area as "format area 1"

Frame 2 is 92% (but could typically be from around 95% to around 75%) of the page height and also contains tabularised HTML created by PHP coding.

The left hand side of frame2 (200px wide) contains user configurable links to popular search engine web sites along with small banner links for various customised formatted areas that the user can choose to click on to load formatted areas from a pre-purchased selection of "formatted areas"

The right hand side of frame 2 (500px wide) contains a "formatted area" that is customisable by again selecting to load from a pre-purchased selection of "formatted areas" this HTML area is of a specific interest to the user.

The formatted areas shall be hereon referred to as "Skins" therefore it can be said that a user may configure the format of their OwnArea by purchasing and subsequently selecting to load a skin from their selection of purchased skins.

The OwnArea operates as shown in Figure 1.

When a user selects the drop down menu, the frames automatically re-size by making frame 1 90% high and frame 2 10% high, this allows all the drop down menu links to appear within frame 1 as shown in Figure 2.

Then when the user selects a link from this menu, the web site requested loads into frame 2 and when fully loaded the frames automatically resize back to 6% frame 1 and 92% frame 2

The user then browses the web site as normal within the frame 2 environment linking from site to site as desired.

The process is repeated for as many times as the user wishes to select links from their drop down menu.

If the user types in a web address directly into the url address text box and presses the go button, the web site appears in frame 2 without any re-sizing having occurred.

It is important to note that at no time do we know what is on display within frame 2. The web link selection is an entirely one-way process. This is because of an inherent security feature within all browsers that does not allow any JavaScript or

other functionality to be run within in a foreign frame from another frame. That is to say as OwnArea resides in frame 1 we do not have the capacity to query the web address that is currently on display in frame 2.

With this OwnArea facility a user has the capability to store their favourite web site links in an on-line secure personal environment so that they can gain access to their information from any web browser at any time.

User web information can using this invention be accessed from any suitable device connected to the internet anywhere thus creating internet information mobility from the inherent movement of the person from access device to device.

Referring to Figure 3. The user is given an option when logging in to store their username on the PC they area using, if they do so (or indeed if any other users have previously done so) then when logging on the user sees a list of username along with text box inserts for password submittal on the login page.

If the username list page is seen by the user and their username is not in the list then they have to click on the login lin and enter both their username and password as normal.

The username and password gives access to the users data on a one session only basis. This is to say that when a user logs into their OwnArea, their username session is logged on our database and they can not log into their OwnArea with another browser running concurrently wither on the same PC or another PC.

This is achieved using a database flag variable that indicates a users username to be "locked" whilst being used.

This further validates the claim that the users data having been created by them, may only be viewed by them one session at a time, This feature stops the possibility of one person creating data in order to publish it for viewing to a group of other individuals at the same time via multi access log ins

The OwnArea site requires the user to exit / close their site in an orderly manner via either selecting the log out or close links from frame 1

Failure to leave their OwnArea site in the pre-defined correct manor results in the username being "locked" and further log in attempts with the same username to be denied until such time that an unlock code is entered via an online request.

When an unlock code is requested, a user must enter their username and password correctly, upon which a randomly generated integer is sent via email to their registered email address, (specified at registration or set via their email configuration facility within their site)

When the user has received an unlock code to their email address, they then have to go to the unlock page and again validate them selves via their username and password, then they enter their unlock code number and they are then automatically logged back into their OwnArea homepage. The number then ceases to be a valid unlock code for them. If the user makes the same error again, then they must repeat the unlock procedure again.

The OwnArea displays the users web site link data for use via a drop down menu that is generated as described above using a PHP script to access a MYSQL database to then construct a menu using JavaScript and DHTML formatting

The menu is dynamically created each and every time that the page is refreshed by reading the data from the database and creating the menu structure according to the users unique data directory structure. The menu also contains search engine links under the heading of Main that is also based upon the users configured choice.

There are two fixed menu headings called "Main" and "Skins" and an additional 4 dynamic named menu headings along with further optional sub directories all having the facility to be dynamically renamed

There is also a facility for displaying the directory structure and links down the left hand side of the screen (this is an added cost option) in a textual format – in this format there is no restriction on the number of main menu headings that is restricted to 4 on the top drop down menu. This side menu is constructed using ActiveX controls with JavaScript, PHP and MYSQL

Within the dynamic menu structure the user may create as many web site links as they wish, each physical address has a link name attributed to it for display purposes with the menu.



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The menu links is created within the "update menu" environment accessed from the Main menu. Again this environment is dynamic and consists of a "tab" page as shown in Figure 5.

Referring to Figure 6, the user can add or delete links, update links or move them to a different directory / sub directory

It does not matter if the user types http:// or www, for the required web address, the site code checks for this and modifies the web address accordingly and shows it as www.web-address.tld (tid - top level domain) and then at a later stage when the link is passed to the browser for processing our code inserts the necessary http:// portion of the web address.

When the user has finished with the update area they click finish and their homepage is displayed with the menu updated accordingly.

For IE (windows internet explorer) there is a facility that allows them to upload links from their PC directly into their OwnArea therefore saving time having to create the links long hand.

This system requires step-by-step participation, by the user in order to fully guarantee that the site cannot perform any data transfer between the PC and our site server without the prior knowledge and express permission of the user as shown in Figure 7.

Referring to Figure 8 the user must first download a file from our server called **urigen.bat** and save it on their PC within the directory where their web site links that they wish to upload reside.

The user must then manually access the same directory using windows explorer (or similar utility) and run the batch file by double clicking on it within their PC environment.

urigen.bat is a MSDOS batch file that consists of one command as follows....

type *.url => urllist.txt

This DQS command lists the files within the directory and "pipes" (>=) the resulting list to a new file called urllist.bd.

urillist but contains web addresses for each link in which directory urigen bat has been ran along with other incidental data relating to the web links that we do not concern ourselves with.

Unlistable format then looks as shown in Figure 9 (depending on the files residing the within the directory)

The user must then return to the web site page as shown in Figure 8 and proceed with step 3

The user must select the browse button and select unlist.bxt from their HDD and then click submit.

When this occurs the file is uploaded to the server and our script code imports this file and performs various PHP string handling functions to extrapolate all text strings than resides between "BASEURL=" and "CRLF" (carriage return line feed – end of line identifier) thus resulting in obtaining the http://wesiteaddress text

Our code stores the web address data in a temporary table in the MYSQL database that is unique to the apache servers users session ID we then processes this data and return the resulting page as follows in figure 10.

The whole process typically takes 2 to 5 seconds to complete, whilst this is happening the invention displays an otherwis blank page with the text "uploading and processing data, please walt"

At this stage it is important to note that at this stage we have not yet imported any data into the users OwnArea menu structure.

If the user does not wish to upload a particular link that is shown on this page then they simply omit to select a director, radio button for it and leave the selection as default set to none, then upon upload any links set to "none" will be ignored.

The user must type a link name that is to de displayed in the drop down menu, we do this because web addresses take up to much space and due to their different formats with forward slashes etc. to display the web address is considered untidy.

After the user is content with their selections they press continue and our code imports the data to the database and takes the user back to the page as identified in Figure 5 where all the new data can be viewed further modified of required.

There is no set limit to the amount of links that may be uploaded in any one session.

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The user can then decide to move any link at anytime within the update environment as shown in Figure 11. All the user has to do is click on the move link (see figure 11) at the end of the link address and our code presents them with a tree diagram of their configured menu structure and they select the directory they wish to move the link to. As shown in Figure 12

The previously mentioned skins system are created and implemented as follows:

- 1. A client creates a skin format and submits it to us for approval
- 2. The administrators of the invention then approve or reject the skin format
- 3. Once accepted the skin is placed on general circulation for purchase by users
- Users can purchase any number of skins and use one at a time to format the appearance of their OwnArea
 homepage and menu bar

Other points to note

- A skin has an expiry date set by the client in multiples of weeks (minimum 1 week)
- The skin may be offered at a sale price or for free (for an expiry duration time) to the user by the client
- . If the skin is offered to the user for free then the client will be paying OwnArea a fee per skin used by users
- A skin also has a maximum circulation set by the client that limits the number of skins that may be used at any one time, for reasons of exclusivity or placing a ceiling on spend in the case of the skins being offered to users for free.

Skins are created by clients; a client must set up an account with the administrators and agree to abide by its terms and conditions

Once an account is created, a client is able to submit as many skin formats as they wish

Referring to Figure 13 a client has a skin management console that is web based and they gain access to it via entering an account number, username and password.

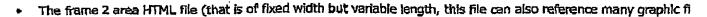
When the user has finished updating the menu web links / structure the user presses the finish button and is returned to their OwnArea homepage where the dynamic menu is now refreshed to include all the changes made as shown in Figure 14.

Referring to Figure 15 the client can choose options from their client management console page once logged in.

If a client selects create a new skin - they are presented with a "tab" formatted page and they have to progress through each tab in order to create their new skin format.

There are 3 files that must make up a skin.

- The main menu background file (Jpeg file fixed size)
- The main menu HTML file (fixed sized table)



The skin files area hosted by OwnArea and the HTML files when imported area automatically scanned by our script cox and any reference to an image file is re-written with a unique image address path to reference the clients skin number directory on our server, this process takes typically takes a couple of sends during upload.

We also include for some of our regular clients the facility to host there own frame 2 HTML skin area, we do this by asking then to submit a web sire url address and we populate the relevant portion of the site with this web addresses HTML via an automatic link when the skin is loaded by the user

The first tab is shown in Figure 16.

With all the skin information entered into the data fields the client has now clicked create and they now see the same page but with an update button, this means that the information can be changed if they notice any errors or change the mind as shown in Figure 17.

This tab page can now be accessed at any time throughout this create skin process by clicking on tab 1

The client now moves on to tab number two (see figure 18)

This page requires all images for use by the clients skin HTML to be uploaded for use by the skin

Once an image is loaded, a remove link appears by the side of it, if the client then wishes to delete it from our server then they can do so by clicking on the link.

When complete the client moves on to tab 3 (see figure 19) again the client can come back to this tab to add or removifiles as they wish at a later date.

The HTML file for the main menu area must be of a fixed size within a zero bordered table, a full specification sheet is available via PDF download

Again the format is the same, a remove link allows the client to remove the HTML form the server and if an other file is imported it will over write the previous one.

The client then progressed to tab 4 (see figure 20)

If this HTML area contains any graphical files or links that have been uploaded on tab 2 the client will see them here. Once the client has uploaded the HTML for area 4 they area ready to progress to the final stage, the preview Is shown in Figure 21.

The client may now view the finished article on the web and go back to any of the other tabs to change any details. When the client is satisfied with the details they may click on finish and the skin will be submitted for approval by an OwnArea operator.

It is important to note that the client may come back to these pages at anytime to make further changes to the skin format, but each time they do so they must go through the same submittal approval procedure.

The skin then gets passed to our in house web page, (see figure 22)

This page presents our in house operators with all the skins that are submitted to us awaiting approval.

Our operator goes down the listing and changes those skin numbers to "live" that pass our criteria test, our operator ca also leave a skin on hold and type in a comment which gets returned to the client automatically when the page is submitted,

If a skin is kept on hold an there has been nothing entered in the text box, then the skin remains on the system and the client does not receive any notification at this time.

The user gains acces an update page via the Update OwnArea link residing in the main menu

The update page is again of a "tab" formatted nature similar to that previously explained and is shown in Figure 23.

The first tab option shown the user in details which skin they currently have set for their OwnArea home page. They calso select a radio button and press submit to change this current select should they wish to (in addition to setting the current skin from the menu on their homepage)

The user can choose to purchase a skin from here also by dicking on the purchase skin tab shown in Figure 24

The user may add any number of skins to a virtual shopping basket (which may be deleted from later) before proceed to purchase the skins via a number of electronic payment methods.

When the user has successfully purchased their skin(s) they are listed in the "manage skins" tab area where the user c set them individually to become the current skin, as shown in figure 24.

Referring to Figure 25 a user can change some of their general details submitted to us upon registration by selecting the change details tab

The user can change their display name, current notification email address, or password (see figure 20)

The user selects which search engines they want to display for use on their OwnArea homepage by selecting the search engine tab shown in Figure 26. This feature may also be accessed by a link in the main menu

The user is able to send feedback information to an OwnArea operator via the feedback tab. If the user has a current skin loaded in their own area, the user can send a message to the author of the skin, but only if the author has selecte a feedback option whilst creating the skin (see figure 27).

It is possible for the invention to be implemented as a browser plug-in with a user's links and/or skins being stored remotely by the administrators and being downloadable as a browser plug-in which may for example incorporate the stored links in to the favourites section of IE and possible. Such a plug-in could be used as an alternative to accessing links and skins via the homepage of the invention or in addition to it with the browser plug-in possible also configuring Internet Explorer or other browser to select the inventions home page as its default starting page.

It is also possible for the invention to take the form of a browser whereby the links and selectable skins are stored by the administrators and can be downloaded to the browser by a user.

Throughout the above specification trademarks have been used, in particular the words Own Area and OwnArea are trademarks.

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